



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,746	01/18/2002	Alex Lobovsky	050-00-007	3263

7590 08/19/2003

Honeywell International, Inc.  
Law Dept. AB2  
P.O. Box 2245  
Morristown, NJ 07962-9806

EXAMINER

COLE, ELIZABETH M

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 08/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/052,746	LOBOVSKY ET AL.
	Examiner	Art Unit
	Elizabeth M Cole	1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-25 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 January 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 1771

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 7-11, 14-22, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Largman et al, U.S. Patent No. 5,057,368 in view of McGregor et al, U.S. Patent No. 5,571,592. Largman discloses a fibrous insulation material comprising a plurality of fibers having a non-circular cross section comprising a plurality of lobes. Largman teaches that such fibers produce superior insulation because of their high loft and reduced tendency to pack. See col. 3, lines 43-57. The fibers may be formed from a variety of polymers, including those claimed. See col. 5, line 40- col. 8, line 22. Largman differs from the claimed invention because Largman does not disclose incorporating a plurality of expandable microspheres into the fibrous material. McGregor et al teaches that incorporating expandable microspheres into a fibrous insulation material and then expanding the microspheres such that the microspheres are retained in place enhances the insulating properties of the insulation due to the improvement in the loft of the insulation. See abstract. Therefore, it would have been obvious to have incorporated expandable microspheres into the insulation of Largman et al. One of ordinary skill in the art would have been motivated to incorporate the expandable microspheres into the insulation of Largman, motivated by the expectation that this would further enhance the insulation properties of the insulation by improving the loft of the insulation. With regard to the limitation that the expanded microspheres

are held in place by the lobes of the fibers, since McGregor et al teaches that the microspheres should be expanded to a size which fixes them in place, it would have been obvious to have expanded the microspheres so that the fibers held them into place.

3. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Largman in view of McGregor as applied to claims 1-4, 7-11, 14-22 and 25 above, and further in view of Dalton et al, U.S. Patent No. 5,753,166. Although Largman teaches employing shaped fibers comprising lobes, Largman does not disclose the claimed shape factor. Dalton et al teaches at col. 4, line 60 and col. 6, lines 57-60, that fibers having a shape factor up to 4 are suitable for use in insulation products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed fibers having shape factors up to 4 in the insulation of Largman. One of ordinary skill in the art would have been motivated to employ fibers having shape factor up to 4 in the insulation of Largman because Dalton teaches that a high shape factor correlates with good shape retention of the fibers. See col. 3, lines 39-40.

4. Claims 5-6, 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Largman in view of McGregor as applied to claims 1-4, 7-11, 14-22 and 25 above, and further in view of Huey, U.S. Patent no. 4,666,485. Largman does not disclose employing mineral fibers as the shaped fibers in the insulating material. Huey teaches that both mineral fibers such as glass fibers and synthetic fibers can be formed into shaped fibers which are suitable for use in insulating materials. See col. 1, lines 10-21. It would have been

Art Unit: 1771

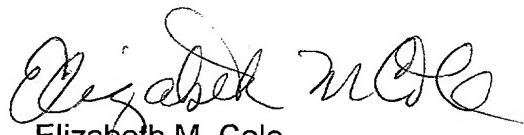
obvious to one of ordinary skill in the art at the time the invention was made to have employed shaped glass fibers as taught by Huey in the insulation material of Largman. One of ordinary skill in the art would have been motivated to employ the shaped glass fibers because Huey teaches that both mineral and synthetic shaped fibers are suitable for use in insulation products.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (703) 308-0037. The examiner may be reached between 6:30 AM and 5:00 PM Monday through Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (703) 308-2414.

Inquiries of a general nature may be directed to the Group Receptionist whose telephone number is (703) 308-0661.

The fax number for official faxes is (703) 872-9310. The fax number for official after final faxes is (703) 872-9311. The fax number for unofficial faxes is (703) 305-5436.



Elizabeth M. Cole  
Primary Examiner  
Art Unit 1771

e.m.c  
August 12, 2003